

ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
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Amendment of the Commission's Rules
with Regard to the 3650-3700 MHz
Government Transfer Band

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ET Docket No. 98-237

REPLY COMMENTS OF
ICG SATELLITE SERVICES, INC.

ICG Satellite Services, Inc. ("ICG") hereby respectfully submits reply comments in response to the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding.¹ ICG agrees with the Commission that any reallocation of the 3650-3700 MHz band (the "extended C-band") requires grandfathering of existing FSS earth stations in the band. However, ICG strongly opposes the Commission's proposal to bar expansion of fixed satellite service ("FSS") use of the 3650-3700 MHz band. ICG also strenuously objects to the Commission's immediately freezing modification and new license applications for the 3650-3700 MHz band prior to obtaining public comment on the issue.

ICG specifically submits its reply comments to draw the Commission's attention to Canadian allocation of the 3650-3700 MHz band, and the necessity of conformance between U.S. and Canadian allocations for the band. Because Canadian satellite carriers are permitted to license earth stations in the 3650-3700 MHz band, continued U.S. licensing of FSS stations in the extended C-band is critical in order for U.S. satellite service providers to maintain competition with Canadian

¹ *Amendment of the Commission's Rules with Regard to the 3650-3700 MHz Government Transfer Band, Notice of Proposed Rulemaking and Order, FCC 98-337, ET Docket No. 98-237 (released Dec. 18, 1998) ("NPRM").*

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carriers. As the Commission's proposal limits future FSS use of the extended C-band, adoption of the Commission's proposal would be contrary to the public interest.

I. BACKGROUND

ICG provides a variety of satellite services, including low cost voice, data, and compressed video services to the maritime market and the transmission of international, voice, and data services. ICG leases the space station transponder capacity of various satellite systems, including the INTELSAT and New Skies systems, as well as various U.S. domestic satellites. ICG, together with other U.S. satellite service providers, faces considerable competition from Canadian satellite carriers. The Commission's proposal to prohibit further U.S. licensing of FSS stations in the extended C-band would provide Canadian carriers with a significant edge in the provision of satellite services, costing U.S. carriers millions in revenue and limiting U.S. carriers' ability to compete in the provision of satellite services.

II. THE COMMISSION'S ALLOCATION OF THE 3650-3700 MHZ BAND SHOULD PERMIT CONTINUED PRIMARY USE BY NEW AND MODIFIED FSS STATIONS

ICG supports the numerous commenters who oppose the Commission's proposed limitations on future FSS use of the 3650-3700 MHz band.² ICG agrees with commenters objecting to the

² See, e.g., Comments of the Satellite Industry Association ("SIA"); Comments of New Skies Satellites N.V.; Comments of Panamsat Corporation ("Panamsat"); Comments of Loral Space & Communications Ltd; Comments of Hughes Communications, Inc.; Comments of GE American Communications, Inc. ("GE American"); Comments of Echostar Communications Corporation; Comments of Comsat Corporation; Comments of GlobeCast North America Incorporated; Comments of Sprint Corporation; and Joint Comments of TRW Inc. and Lockheed Martin Corporation ("Joint Comments of TRW & Lockheed").

Commission's freeze on new applications for FSS earth stations in the 3650-3700 MHz band.³ ICG is also concerned that the Commission's proposed FWA allocation will cause interference with Navy radar facilities,⁴ and is equally concerned that FWA use of the 3650-3700 MHz band could cause interference to FSS use of the adjacent 3700-4200 MHz band. ICG also finds it puzzling that the Commission could issue a Notice of Proposed Rulemaking simultaneously suggesting allocation of the extended C-band for satellite tracking, telemetry and control ("TT&C") gateway links for satellite systems in bands above 15 GHz, while proposing to bar future FSS expansion in the 3650-3700 MHz band.⁵

ICG specifically submits its comments to draw the Commission's attention to Canadian allocation of the 3650-3700 MHz frequency band. To the extent that Canadian satellite carriers are permitted to utilize more spectrum for satellite services than U.S. providers, Canadian carriers can develop a significant competitive lead over U.S. carriers in the transmission of satellite services. In addition, as the Commission knows, frequency coordination between U.S. and Canadian use of spectrum is vital to maintain cordial relations with our neighbor and ally.

As set forth in Attachment A, the current Canadian allocation of the 3500-4200 MHz band calls for shared, co-primary use between fixed service and fixed satellite service providers. Industry Canada, the government manager of Canada's allocation of spectrum, recently proposed the introduction of fixed wireless access ("FWA") systems in the 3400-3700 MHz band in rural areas.

³ See, e.g., Comments of the SIA at 1, 3; Comments of Panamsat at 1-4.

⁴ See NPRM at ¶ 11.

⁵ See, e.g., Joint Comments of TRW & Lockheed at 1-2; Comments of GE American at 1-2.

Significantly, Industry Canada expressly declined to establish FWA systems in the extended C-band on a sole primary basis, to the detriment of existing or new FSS stations. In its Policy Paper entitled "Spectrum Policy and Licensing Provisions for Fixed Wireless Access Systems in Rural Areas in the Frequency Range 3400-3700 MHz," ("Industry Canada Policy Paper," pages 6 and 7, Attachment B), Industry Canada states that

[t]he frequency band 3500-4200 MHz is allocated to fixed and fixed-satellite service on a co-primary basis. Coordination of FWA and FSS stations is required and studies are underway in conjunction with the Radio Advisory Board of Canada (RABC) to determine the relevant coordination criteria.⁶

While ICG does not endorse FWA use of the 3650-3700 MHz band in the U.S., any U.S. decision as to allocation of the spectrum should reflect consideration of Canadian use of the same frequencies. Conflicting use of the band would cause serious difficulties for carriers along the U.S.-Canadian border. Even more problematic for carriers such as ICG, Canadian satellite providers' ability to use the extended C-band would provide Canadian carriers with a significant competitive advantage in the provision of satellite services. ICG estimates that for every extra 100 MHz of spectrum Canadian carriers may use that U.S. carriers may not, many millions of dollars in revenue are lost to Canadian carriers every year. As a consequence, adoption of the Commission's proposed limitations on FSS use of the extended C-band would be contrary to the public interest.

⁶ Industry Canada Policy Paper at 7, ¶ 3.1.5 (see Attachment B). Industry Canada has only proposed to issue FWA licenses in the 3400-3550 MHz band at this time.

III. CONCLUSION

ICG opposes the Commission's proposed restrictions for FSS use of the 3650-3700 MHz band. The Commission should lift its freeze on new FSS and station modification licensing, which was imposed without any public notice or ability to comment. The Commission should also carefully consider the regulations it adopts for FWA use of the extended C-band in light of U.S. Navy radar use of the spectrum, and the potential for harmful interference to adjacent FSS use of the 3700-4200 MHz band.

Because Canada has declined to allocate FWA sole primary use of the 3650-3700 MHz band, U.S. satellite service providers would face substantial competition from Canadian carriers with access to greater bandwidth if the Commission's proposal is followed. FWA use might also encounter interference along the U.S. - Canadian border as a result of the different allocations for the extended C-band spectrum. For these reasons, ICG respectfully requests that the Commission decline to adopt its proposal for the 3650-3700 MHz band as contrary to the public interest.

Respectfully Submitted,

A handwritten signature in black ink that reads "Nancy Killen Spooner". The signature is written in a cursive, flowing style.

Helen E. Disenhaus
Nancy Killen Spooner
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ATTACHMENT A

**Canadian Table of Frequency Allocations, 9 kHz to 275 GHz
Cover Page and Page 41**

**CANADIAN TABLE OF
FREQUENCY ALLOCATIONS
9 kHz to 275 GHz**

Published 1995
Revised 1998

Telecommunications Policy Branch
Ottawa, 1998

MHz
CANADIAN ALLOCATION TABLE

2 900-3 100	RADIONAVIGATION S5.426 Radiolocation S5.425 S5.427
3 100-3 300	RADIOLOCATION S5.428 S5.149 S5.333
3 300-3 400	RADIOLOCATION S5.433 C5 Amateur S5.149
3 400-3 500	FIXED C15 RADIOLOCATION S5.433 C5 Amateur S5.282
3 500-4 200	FIXED FIXED-SATELLITE (space-to-Earth)
4 200-4 400	AERONAUTICAL RADIONAVIGATION S5.438 S5.440
4 400-4 500	FIXED C25
4 500-4 800	FIXED FIXED-SATELLITE (space-to-Earth) S5.441 C25
4 800-4 825	FIXED Radio Astronomy

ATTACHMENT B

**Spectrum Policy and Licensing Provisions for
Fixed Wireless Access Systems in Rural Areas
in the Frequency Range 3400-3700 MHz
Released by Industry Canada, July 1998
Notice No. DGTP-013-98
Cover Page and Pages 6 and 7**

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Industry
Canada Industrie
Canada

SP 3400-3700 MHz
July 1998

Spectrum Management and Telecommunications

Spectrum Utilization Policies

Spectrum Policy and Licensing Provisions for Fixed Wireless Access Systems in Rural Areas in the Frequency Range 3400-3700 MHz

Canada

Aussi disponible en français - PS 3400-3700 MHz

Industry Canada proposes to apply a fee proportional to the geographic area being licensed. For each 25 Km² an annual fee of \$120.00 for each 25 MHz block in the 3400-3550 MHz band is proposed. This fee was derived, in part, using the current per telephone channel licensing fee established in the *Radiocommunication Regulations* as a base and assumes that the block is shared, whether this is the case or not. The number of potential telephone channels that could be accommodated within 25 MHz of spectrum using state-of-the-art data transmission technology was then calculated. The resulting figure was tested against a calculation of the cost of the wireline substitute as reflected in the monthly line access charges of the carriers.

Interested parties are invited to comment on the proposed fee as described above.

Comments should be submitted on or before October 13, 1998 to the office of:

Director General
Radiocommunication and Broadcasting Regulatory Branch
Industry Canada
Jean Edmonds Building
300 Slater Street
Ottawa, Ontario
K1A 0C8

3.1.5 Frequency Allocation and Regulation Considerations

The fixed service allocation in the band 3400-3700 MHz needs to take into account other service allocations including those in adjacent spectrum. The band 3100-3300 MHz is allocated to the radiolocation and radionavigation services on primary basis. While there is no co-channel operations with fixed wireless access systems in the band 3400-3700 MHz, there may be out-of-band emissions from radars in areas adjacent to waterways with international traffic, including the Great Lakes which may cause interference.

The band 3300-3500 MHz is allocated to radiolocation on primary basis and is limited in Canada to government use. In the United States, the band 3300-3700 MHz is allocated to radiolocation on a primary basis for government use. Consequently, FWA systems will need to coordinate with the U.S. in certain coastal areas due to the operation of ship-borne radars. As well, there are some operations of airborne radar in the band. Studies are underway to determine the susceptibility of FWA systems to these operations. Upon request, the Department will provide advice to applicants, based on available information, as to the potential of interference to proposed FWA systems from radars operating in Canada and the United States. Protection of FWA systems

from radars will be afforded to the extent that coordination or assurance against interference can be achieved with domestic and foreign operations.

The frequency band 3500-4200 MHz is allocated to fixed and fixed-satellite service on a co-primary basis. Coordination of FWA and FSS stations is required and studies are underway in conjunction with the Radio Advisory Board of Canada (RABC) to determine the relevant coordination criteria. Furthermore, FWA systems in the band 3500-3700 MHz will be required to coordinate with multi-hop point-to-point radio systems operating in the band 3500-4200 MHz in accordance with SRSP 303.5 Issue 4. (See Section 3.3 for more information.)

Upon release of this policy document, the Radio Advisory Board of Canada (RABC) will be consulted on a number of technical issues to facilitate implementation and coordination of FWA systems in the band 3400-3700 MHz.

The band 3300-3500 MHz is also allocated to amateur service on secondary basis. It should be noted that the Canadian Table of Frequency Allocations was amended in 1997. Included in the changes was a new primary allocation for the fixed service in the band 3400-3500 MHz. Consequently, operators of amateur systems will continue to have access to this band on a secondary basis. Operators of amateur stations will be required to protect FWA systems and other primary services from interference and operate on a no protection basis. Radio amateurs are encouraged to consult the Department for information on FWA system deployment.

3.1.6 Technical and Coordination Considerations

As FWA systems will be authorized using spectrum licences, and pending the finalization of co-existence criteria, individual site licensing and coordination of hubs will be required on an inter-system basis. The subscriber stations however, will require a measure of protection throughout the licensed service area. This can be accomplished by specifying a field strength or coordination distance to the desired service area boundary. Either one will require the assumption of typical system characteristics and configuration to minimize the potential for interference while still retaining a measure of spectrum reuse efficiency. The characteristics and precise mechanisms for coordination will be developed in consultation with the RABC, taking into account existing and planned equipment as well as band usage to the extent possible.

The use of spectrum blocks of 25 MHz has evolved as an industry recognized structure for the band which will allow sufficient capacity and flexibility for deployment of systems within a desired service area. The selection of a channel plan within the band i.e. the pairing of the 25 MHz blocks, will